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Marlin E. Rice

Iowa State University, merice@iastate.edu

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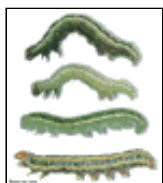
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INTEGRATED CROP MANAGEMENT

More caterpillar problems in soybean

The list of caterpillars defoliating soybean in Iowa continues to lengthen. Both black cutworms and variegated cutworms have cut soybean fields throughout the state. Black cutworms in soybean have become more common in the past 3 years, but variegated cutworms in soybean were totally unexpected. Variegated cutworms may have one or two more generations this year but soybean should grow out of the stage in which plants are susceptible to cutting. Defoliating caterpillars should be the primary concern for the remainder of the growing season.



Caterpillars found in soybean include loopers (dark and light phase), alfalfa caterpillar, and zebra caterpillar.

[Enlarge](#) [1]

Loopers have been the primary defoliator in soybean this year. I [reported](#) [2] in last week's ICM newsletter that some of these loopers may have been soybean loopers but this is unlikely. The soybean looper is mostly a southern species and if it does occur in Iowa then it will be a late summer arrival. During the last couple of weeks, defoliation from loopers has been reported from Bremer, Fremont, Hardin, Page, Marshall, and Union counties. I examined a field in Marshall County on June 22 that was heavily defoliated by loopers. Also in this field were a few green cloverworms, yellowstriped armyworms, variegated cutworms, and zebra caterpillars. The field was no-till and had a substantial population of the weed marehail. Both Shannon Gomes, Cedar Basin Crop Consulting, Waverly, and Brian Lang, extension crop specialist, Decorah, report large populations of loopers in no-till fields with marehail. These two factors seem to be a common denominator contributing to looper populations in some soybean fields.

Thistle caterpillars are being reported in central, northeastern, and eastern Iowa. Virgil Schmitt, extension crop specialist, Tipton, reports a field in Clinton County being defoliated by this insect. In 1992, the thistle caterpillar was common in Iowa soybean fields and caused significant defoliation in very young soybean. In 1995, they appeared again and heavily defoliated fields in eastern Iowa during the late summer. Thistle caterpillars construct webs in upper soybean leaves, tying leaves together with silk and feeding inside their protective nest. There they consume approximately 40-square inches of soybean leaves, causing 97 percent of the leaf removal during the last two larval stages (about 3/4 to 1 1/4 inch in length). There will be at least one more generation of thistle caterpillars in Iowa soybean.



Thistle caterpillar.

[Enlarge](#) [3]

Saltmarsh caterpillars were reported by Jim Russmann, FS Growmark, Council Bluffs, on June 25 defoliating 40-50 acres of V3 soybean north of Treynor in Pottawattamie County. He said they were "marching across the field."

Fields with populations of several caterpillar species create difficult situations for making management decisions based on insects counts. An easier approach would be to use an estimate of defoliation. A common threshold for all species of defoliating caterpillars would be that populations should be controlled before defoliation exceeds 35 percent of the leaf area in prebloom soybean.



Above: soybean field with significant defoliation on the far hill from several species of foliage-feeding caterpillars.

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[1] <http://www.ent.iastate.edu/imagegal/lepidoptera/soylooper/fourcaterpillars.html>

[2] <http://www.ipm.iastate.edu/ipm/icm/2001/6-25-2001/loopdefol.html>

[3] <http://www.ent.iastate.edu/imagegal/lepidoptera/thistlecat/thistlecaterpillar.html>

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